



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

September 16, 2016

Mr. Buck Elliott  
Operations Manager, Seacoast Terminals  
Sprague Operating Resources, LLC  
372 Shattuck Way  
Newington, NH 03801

RE: On-Site Full Compliance Evaluation Report

Dear Mr. Elliott:

The New Hampshire Department of Environmental Services, Air Resources Division (NHDES) has completed a Full Compliance Evaluation of the Sprague Operating facility at 372 Shattuck Way in Newington, New Hampshire (Sprague). The purpose of the evaluation was to determine compliance with your current air permit and the N.H. Administrative Rules, Env-A 100 *et seq.* An on-site inspection was included in the evaluation and was completed September 1, 2016. This is a copy of the On-Site Full Compliance Evaluation Report for your review and records.

DES identified deficiencies during this compliance evaluation as detailed in this report.

If you have any questions, please do not hesitate to give me a call at (603) 271-1987 or by email at [Edward.PedutoJr@des.nh.gov](mailto:Edward.PedutoJr@des.nh.gov).

Sincerely,

Edward F. Peduto, Jr.  
Senior Compliance Assessment Engineer  
Air Resources Division

cc: Town Administrator, Town of Newington, 205 Nimble Hill Road, Newington, NH 03801

**[www.des.nh.gov](http://www.des.nh.gov)**

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**Abbreviations and Acronyms**

AAL	Ambient Air Limit
acf	actual cubic foot
ags	above ground surface
ASTM	American Society of Testing and Materials
Btu	British thermal units
CAS	Chemical Abstracts Service
CI	Compression Ignition
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CPMS	Continuous Parameter Monitoring System
DER	Discrete Emission Reduction
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
ERC	Emission Reduction Credit
ft	foot or feet
ft <sup>3</sup>	cubic feet
gal	gallon
HAP	Hazardous Air Pollutant
hp	horsepower
hr	hour
kW	kilowatt
lb	pound
LPG	Liquified Petroleum Gas
MM	million
MSDS	Material Safety Data Sheet
MW	megawatt
NAAQS	National Ambient Air Quality Standard
NG	Natural Gas
NHDES	New Hampshire Department of Environmental Services
NO <sub>x</sub>	Oxides of Nitrogen
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standard
OOS	Out of Service
PM <sub>10</sub>	Particulate Matter < 10 microns
ppm	parts per million
psi	pounds per square inch
RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
RSA	Revised Statutes Annotated
RTAP	Regulated Toxic Air Pollutant
scf	standard cubic foot
SO <sub>2</sub>	Sulfur Dioxide
TSP	Total Suspended Particulate
tpy	tons per consecutive 12-month period
ULSD	Ultra Low Sulfur Diesel
ULSK	Ultra Low Sulfur Kerosene
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WC	Inches water column

## **I. Facility Description**

NHDES conducted a Full Compliance Evaluation of the Sprague River Road Terminal facility located at 372 Shattuck Road in Newington, New Hampshire (Sprague) and conducted an onsite inspection, on September 1, 2016 as part of the evaluation. The purpose of the inspection was discussed as well as the rules pertaining to claims of confidentiality and facility safety concerns. Sprague agreed to the inspection and authorized access to the facility. No material provided during the inspection was stated to be confidential.

Sprague is a privately-owned company that employs 45 people at the River Road Terminal. The facility operates on a 78 acre parcel. Due to a redesign of the road system in the area, the Town of Newington changed the name of River Road to Shattuck Way. The facility has always been known as the River Road Terminal; therefore, Sprague made the decision not to change the name.

Sprague began operating at this location in the late 1950's. From 1973 to 1981, Sprague operated a refinery on site and manufactured naphtha (unfinished gasoline) and shipped it to refineries in New Jersey for final production of gasoline. After new regulations were promulgated under the Clean Air Act in the late 1970's, Sprague shut down the refining operation and modified its operations to receive and distribute only crude oil products. Sprague then began to diversify its business by storing other products. Sprague operates this facility 24 hours per day and seven days per week for its customers.

Sprague's facility is currently a marine terminal involved in the import, export, and storage of bulk liquid and dry materials. Material is received by ship or barge and then transferred to the above ground storage tanks or silos. The current permit covers the operation of two boilers and an emergency generator. Other operations below permitting thresholds include a tank farm for storage and distribution of distillates, residual oil, used cooking oil and additives (42 above ground tanks – See Attachment 1 for complete listing), bulk loading terminal (11 loading bays), two tall silos for storage and distribution of Portland cement and an area to receive road salt and gypsum rock from barges for storage in stockpiles and subsequent distribution.

Facility Name and Address	Sprague Operating Resources, LLC 372 Shattuck Way Newington, NH 03801
County	Rockingham
Telephone	603-430-5131
AFS#	3301500039
Source Type	True Minor
Inspection Date / Time	September 1, 2016 / 9:00 a.m.
Inspection Type	On-Site Full Compliance Evaluation
Inspection Period	2012 – September 1, 2016
Weather	Sunny, 75 degrees, calm winds
Inspected by	Edward Peduto, Senior Compliance Assessment Engineer Ray Walters, Compliance Measurement and Data Program Manager Margaret King, Air Pollution Control Engineer
Source Contact(s)	Buck Elliott, Operations Manager

	Steve Halloran, Assistant Terminal Manager Jason Littlefield, Environmental Manager
Last Inspection	April 17, 2012
Last Inspection Results:	
<ul style="list-style-type: none"> <li>Sprague failed to submit its Semi-Annual Fuel Certification Report for the period October to December 2011 in a timely manner, as required by 40 CFR 60.48c(j).</li> <li>At the time of the April 17, 2012 inspection, Sprague had not conducted an update to its air toxics compliance determination in accordance with Env-A 1405.01(a).</li> </ul>	
Sprague corrected the deficiencies to the satisfaction of NHDES and it was determined that no further action was required.	

The table below lists the permitting timeline and the effective periods of each permit / application covering the evaluation period. Sprague's permit expired February 28, 2015 and is currently in the renewal process. Since the application for the renewal was received by NHDES more than 90 days prior to the expiration of the permit, the application shield applies.

Permitting / Application Timeline			
Application	14-0439	Submitted (timely)	October 23, 2014
Permit	SP-0082	Issued	February 10, 2010
		Expired	February 28, 2015

This evaluation covers the period of 2012 through September 1, 2016.

## II. Emission Unit Identification

Table 1 lists the permitted emissions units for the facility from State Operating Permit SP-0082.

Table 1 - Emission Unit Identification				
Emission Unit ID	Device Identification	Manufacturer Model Number Serial Number	Installation Date	Maximum Design Capacity and Permitted Fuel Type(s)
EU01	Boiler No. 1	Cleaver Brooks CB655-500 L35520	1973	20.9 MMBtu/hr No. 2 fuel oil – equivalent to 150 gal/hr
EU04	Boiler No. 2	Cleaver Brooks CBLE-200-500-150ST T2406-1-1	2011	20.4 MMBtu/hr firing primarily pipeline natural gas – equivalent to 0.020 mmcf/hr or No. 2 fuel oil – equivalent to 146 gal/hr

Table 1 - Emission Unit Identification				
Emission Unit ID	Device Identification	Manufacturer Model Number Serial Number	Installation Date	Maximum Design Capacity and Permitted Fuel Type(s)
EU03	EG No. 1	Consolidated Power 500DIT A38325UC (pre-2006 model year)	1978	5.6 MMBtu/hr Diesel fuel – equivalent to 40 gal/hr, 706 hp Hour Meter: 1423.0 (1/1/2012) Hour Meter: 1457.7 (9/1/2016)

NHDES observed the devices identified in Table 1 and Sprague reported that no changes to these devices were made after installation that required a permit modification.

The table below lists the reported emissions for the review period for the permitted devices.

Year	Nitrogen Oxides (tpy)	Sulfur Dioxide (tpy)	Carbon Monoxide (tpy)	Particulate Matter (PM) (tpy)	NMVOCs (tpy)	Total Emissions (tpy)
Limits	---	---	---	---	---	N/A
2015	2.58	0.47	1.93	0.08	0.12	5.18
2014	2.94	0.78	2.13	0.10	0.14	6.09
2013	2.77	0.35	2.19	0.07	0.14	5.52
2012	2.73	0.57	2.08	0.08	0.13	5.59

Reported emissions were calculated using the NHDES recommended emissions factors for the period 2012 through 2015. The factors and approach used for the evaluation period are consistent with the approach used in the permit application, the permits issued and the approved emission factors for 2015.

### III. Stack Criteria

Table 2 lists the stacks associated with the permitted emission units from State Permit to Operate SP-0082. The stacks were observed to be vertical and unobstructed and in compliance with the stated permit conditions. EU04 was operating at the time of the inspection on natural gas and no opacity was present from stack #2.

Table 2 - Stack Criteria				
Stack Number	Emission Unit or Pollution Control Equipment ID	Minimum Height (feet above ground surface)	Maximum Exit Diameter (ft)	Stack Configuration
1	EU01	75	2.0	Vertical
2	EU04	75	2.33	Vertical

#### IV. Compliance with Operating and Emission Limits

Table 3, below taken from permit SP-0082 lists the Operating and Emission Limitations for the facility and any deficiencies noted during the evaluation.

Table 3 - Operating and Emission Limitations				
Item #	Requirement	Applicable Emission Unit	Regulatory Basis	Compliant
1	<u>Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970</u> The average opacity from fuel burning devices installed after May 13, 1970 shall not exceed 20 percent for any continuous 6-minute period.	EU01, EU04, & EU03	Env-A 2002.02	Yes
<b>Findings: No opacity was noted while the unit was firing natural gas during the inspection for EU04. Opacity for EU01 and EU03 could not be determined since neither device was operating at the time of the inspection. At the time the permit was issued, NHDES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the opacity limit.</b>				
2	<u>Activities Exempt from Visible Emission Standards</u> The average opacity shall be allowed to be in excess of those standards specified in Env-A 2002.02 for one period of 6 continuous minutes in any 60 minute period during startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires.	EU01 & EU03	Env-A 2002.04(c)	Yes
3	<u>Activities Exempt from Visible Emission Standards</u> For those steam generating units subject to 40 CFR 60, no more than one of the following two exemptions shall be taken: a. During periods of startup, shutdown and malfunction, average opacity shall be allowed to be in excess of 20% for one period of 6 continuous minutes in any 60-minute period; or b. During periods of normal operation, soot blowing, grate cleaning, and cleaning of fires, average opacity shall be allowed to be in excess of 20% but not more than 27% for one period of 6 continuous minutes in any 60-minute period.	EU04	Env-A 2002.04(a)	Yes
4	<u>Activities Exempt from Visible Emission Standards</u> Exceedances of the opacity standard in Env-A 2002 shall not be considered violations if the Owner or Operator demonstrates to the Division that such exceedances: a. Were the result of the adherence to good boiler operating practices which, in the long term, result in the most efficient or safe operation of the boiler;	EU01 & EU04	Env-A 2002.04(d), (e), and (f)	Yes



Table 3 - Operating and Emission Limitations				
Item #	Requirement	Applicable Emission Unit	Regulatory Basis	Compliant
	<p>b. Occurred during periods of cold startup of a boiler over a continuous period of time resulting in efficient heat-up and stabilization of its operation and the expeditious achievement of normal operation of the unit;</p> <p>c. Occurred during periods of continuous soot blowing of the entire boiler tube section over regular time intervals as determined by the operator and in conformance with good boiler operating practice; or</p> <p>d. Were the result of the occurrence of an unplanned incident in which the opacity exceedance was beyond the control of the operator and in response to such incident, the operator took appropriate steps in conformance with good boiler operating practice to eliminate the excess opacity as quickly as possible.</p>			
5	<p><u>Particulate Emission Standards for Fuel Burning Devices Installed After May 13, 1970 but Before January 1, 1985</u></p> <p>EG No. 1 particulate emissions are limited to 0.60 lb/MMBTU.</p>	EU03	Env-A 2002.07(c)(1)	Yes
<p><b>Findings:</b> Compliance with the particulate standard can only be determined through stack testing and no testing has been required for this device to date. At the time the permit was issued, NHDES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the particulate limit.</p>				
6	<p><u>Particulate Emission Standards for Fuel Burning Devices Installed After May 13, 1970 but Before January 1, 1985</u></p> <p>Boiler No.1 particulate emissions are limited to 0.48 lb/MMBTU.</p>	EU01	Env-A 2002.07(c)(2)	Yes
<p><b>Findings:</b> Compliance with the particulate standard can only be determined through stack testing and no testing has been required for this device to date. At the time the permit was issued, NHDES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the particulate limit.</p>				
7	<p><u>Particulate Emission Standards for Fuel Burning Devices Installed On or After January 1, 1985</u></p> <p>Boiler No. 2 particulate emissions are limited to 0.30 lb/MMBTU.</p>	EU04	Env-A 2002.08	Yes
<p><b>Findings:</b> A stack test was conducted May 8, 2012 while the unit was firing #2 fuel oil. The emission rate determined from the test was 0.0014 lb/MMBtu. Therefore, the device is in compliance with this requirement.</p>				

Table 3 - Operating and Emission Limitations				
Item #	Requirement	Applicable Emission Unit	Regulatory Basis	Compliant
8	<u>Particulate Emissions from Common and Multiple Stacks</u> When one fuel burning device is connected to 2 or more stacks, the allowable particulate emission shall not exceed that allowable for the same device had it been connected to only one stack.	EU03	Env-A 2002.09	Yes
Findings: Compliance with the particulate standard can only be determined through stack testing of both stacks simultaneously and no testing has been required for this device to date. At the time the permit was issued, NHDES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the particulate limit.				
9	<u>Maximum Sulfur Content Allowable in Liquid Fuels</u> The sulfur content of No. 2 oil shall not exceed 0.4 percent sulfur by weight.	EU01, EU04, & EU03	Env-A 1604.01(b)	Yes
Findings: Sprague conducts sulfur testing of all liquid fuels delivered to the facility. Fuel burned for each of the permitted devices is sold to the facility from the saleable inventory. The sulfur content for the evaluation period ranged from 0.138 to 0.178% Sulfur. Therefore, Sprague is in compliance with this requirement.				
10	<u>Sulfur Content Limitations for Gaseous Fuels</u> The sulfur content of propane/natural gas shall not exceed 15 grains of sulfur per 100 cubic feet at standard temperature and pressure.	EU04	Env-A 1605.01	Not Applicable
Findings: Sprague uses pipeline natural gas for this unit and the sulfur limitation for pipeline supplied gaseous fuels no longer applies.				
11	<u>Emergency Generators</u> Each emergency generator shall only operate: <ul style="list-style-type: none"> <li>a) As a mechanical or electrical power source during emergency situations; or</li> <li>b) During normal maintenance and testing; or</li> <li>c) During periods in which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions of 5% of normal operating voltage requiring more than 10 minutes to implement, voluntary load curtailments by customers, or automatic or manual load-shedding, in response to, or to prevent the occurrence of, unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or other such emergency conditions.</li> </ul>	EU03	Env-A 101.671	Yes



Table 3 - Operating and Emission Limitations				
Item #	Requirement	Applicable Emission Unit	Regulatory Basis	Compliant
12	<p><u>Emergency Generators</u> Each emergency generator shall be limited to 500 hours of operation, as detailed in Table 3 Item 11, during any consecutive 12-month period.</p> <p>a) Beginning May 3, 2013, the diesel emergency engine shall be limited to 100 hours per year of operation for maintenance checks and readiness testing (Table 3 Item 11(b)).</p> <p>b) The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engines beyond 100 hours per calendar year.</p>	EU03	<p>Env-A 1301.02(j)</p> <p>40 CFR 63.6640 (Subpart ZZZZ)</p>	Yes
<p><b>Findings: EU03 has operated for a total of 44.7 hours for the period January 1, 2012 through September 1, 2016. Therefore, Sprague is in compliance with this requirement.</b></p>				
13	<p><u>Diesel Emergency Engine Operating Requirements (manufactured prior to June 12, 2006)</u></p> <p>Each diesel emergency engine shall be operated as follows beginning May 3, 2013:</p> <p>a) Change oil and filter every 500 hours or annually, whichever comes first;</p> <p>b) In lieu of "a" above, the facility has the option to change the oil and filter in accordance with an Oil Analysis Program prepared and implemented as specified in 40 CFR 63.6625(i);</p> <p>c) Inspect air cleaner every 1,000 hours or annually, whichever comes first and replace filter as necessary;</p> <p>d) Inspect hoses and belts every 500 hours or annually, whichever comes first and replace as necessary;</p> <p>e) Minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes; and</p> <p>f) Operate and maintain the engine according to the manufacturer's emission-related operation and maintenance instructions.</p>	EU03	<p>40 CFR 63.6603 63.6625(e)(3) 63.6625(i) (Subpart ZZZZ)</p>	Yes

Table 3 - Operating and Emission Limitations				
Item #	Requirement	Applicable Emission Unit	Regulatory Basis	Compliant
<b>Findings:</b> Sprague has an outside contractor that conducts major maintenance every April and a minor check every October that includes all of the maintenance items listed in this condition. Therefore, Sprague is in compliance with this condition.				
14	<u>NESHAP General Provisions</u> a) Maintain compliance with the emission limitations and operating limitations in this subpart that apply to the owner/operator at all times. b) At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. c) The general duty to minimize emissions does not require the owner/operator to make any further efforts to reduce emissions if levels required by this standard have been achieved. d) Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	EU03	40 CFR 63.6605 Subpart ZZZZ	Yes

#### V. Compliance with Monitoring and Testing Requirements

Table 4, below taken from permit SP-0082 lists the required monitoring and testing requirements for the facility and any deficiencies noted during the evaluation.

Table 4 - Monitoring and Testing Requirements						
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
1	To Be Determined	When conditions warrant, the Division may require the Owner or Operator to conduct stack testing in	Upon request by the Division	Facility Wide	RSA 125-C:6, XI	Yes

Table 4 - Monitoring and Testing Requirements						
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
		accordance with USEPA or other Division approved methods.				
<b>Findings: EPA instructed Sprague to conduct a particulate test on EU04 while firing #2 fuel oil. Sprague conducted the test May 8, 2012 and reported the results.</b>						
2	Sulfur Content of Liquid Fuels	Conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets in accordance with Table 5, Item 5 in order to demonstrate compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of fuel oil/diesel to the facility	Facility Wide	Env-A 806.02	Yes
<b>Findings: Sprague conducts sulfur analyses on each shipment received by the facility which is either subsequently sold or used on site to support terminal operations.</b>						
3	Sulfur content of gaseous fuels	Conduct testing to determine the sulfur content in grains of sulfur per 100 cubic feet, of gaseous fuels.	Upon written request by EPA or DES	EU04	Env-A 806.03	Not Applicable
<b>Findings: There is no longer a requirement to test the sulfur content of natural gas and the facility has not been requested to conduct this analysis during the evaluation period.</b>						
4	Hours of Operation	Each emergency engine shall be equipped with a non-resettable hour meter.	Continuous	EU03	40 CFR 63.6625, Subpart ZZZZ	Yes

## VI. Compliance with Recordkeeping Requirements

Table 5, below taken from permit SP-0082 lists the required recordkeeping for the facility and any deficiencies noted during the evaluation.

Table 5 - Recordkeeping Requirements					
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
1	<u>Record Retention and Availability</u> Keep the required records on file. These records shall be available for review by the	Retain for a minimum of 5 years	Facility Wide	Env-A 902	Yes

Table 5 - Recordkeeping Requirements					
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
	Division upon request.				
2	<u>General Recordkeeping Requirements for Combustion Devices</u> Maintain the following records of fuel characteristics and utilization for the fuel used in the combustion devices: a. Type (e.g. diesel fuel, #2 fuel) and amount of fuel burned in each device, <u>or</u> b. Type and amount of fuel burned in multiple devices and hours of operation of each device to be used to apportion fuel use between the multiple devices.	Monthly	EU01, EU04, & EU03	Env-A 903.03	Yes
3	<u>General NO<sub>x</sub> Recordkeeping Requirements</u> If the actual annual NO <sub>x</sub> emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then record the following information: a. Identification of each fuel burning device; b. Operating schedule during the high ozone season (June 1 through August 31) for each fuel burning device identified in Table 5, Item 2.a, above, including: 1. Typical hours of operation per day; 2. Typical days of operation per calendar month; 3. Number of weeks of operation; 4. Type and amount of each fuel burned; 5. Heat input rate in MMBtu/hr; 6. Actual NO <sub>x</sub> emissions for the calendar year and a typical high ozone day during that calendar year; and 7. Emission factors and the origin of the emission factors used to calculate the NO <sub>x</sub> emissions.	Maintain Up-to-Date Data	EU01, EU04, & EU03	Env-A 905.02	Yes
4	<u>Gaseous Fuel Recordkeeping Requirements</u> Maintain one of the following: a. Sulfur content as percent sulfur by weight or in grains per 100 cubic feet of fuel; b. Documentation that the fuel source is from a utility pipeline; or c. Documentation that the fuel meets state sulfur limits.	For any change in natural gas fuel supplier but at least annually	EU04	Env-A 903.03	Yes

Table 5 - Recordkeeping Requirements					
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
5	<p><u>Liquid Fuel Oil Recordkeeping Requirements</u></p> <p>In lieu of sulfur testing pursuant to Table 4, Item 2, the Owner or Operator may maintain fuel delivery tickets that contain the following information:</p> <p>For #2 Fuel Oil:</p> <p>A written statement from the fuel supplier that the sulfur content of the fuel as delivered does not exceed state or federal standards for that fuel.</p>	For each delivery of fuel oil to the facility	Facility Wide	Env-A 806.05	Yes
6	<p><u>Operation Log for the Emergency Engine</u></p> <p>a) The Owner or Operator shall keep records of the hours of operation of the emergency engine that are recorded through the non-resettable hour meter.</p> <p>b) The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency, and maintenance and testing hours.</p> <p>c) The owner or operator must maintain a current copy of the operating and maintenance (O&amp;M) manual for the engine and any associated control devices.</p> <p>d) The owner or operator must maintain records of all maintenance performed on the emergency engine.</p>	Keep a running Log	EU03	40 CFR 63.6655, Subpart ZZZZ	Yes
7	<p><u>NSPS Recordkeeping Requirements for Small Steam Generating Units</u></p> <p>Maintain the following records for Boiler No. 2:</p> <p>a. Amount of fuel combusted in boiler; and</p> <p>b. For #2 fuel oil, copies of fuel supplier certificates which include:</p> <ol style="list-style-type: none"> <li>1. The name of the fuel oil supplier;</li> <li>2. A statement that the oil complies with ASTM D396-78, 89, 90, 92, 96, or 98, Standard Specifications for Fuel Oils, for distillate oil; and</li> <li>3. Sulfur content of the oil.</li> </ol>	Monthly	EU04	40 CFR 60.48c(f) and (g) (Subpart Dc)	Yes

Table 5 - Recordkeeping Requirements					
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
8	<u>NSPS Recordkeeping Requirements for Small Steam Generating Units</u> Maintain copies of all required notifications and periodic reports submitted to US EPA.	As Necessary	EU04	40 CFR 60.48c(a) & (c) (Subpart Dc)	Yes

## VII. Compliance with Reporting Requirements

Table 6, below taken from permit SP-0082 lists the reporting requirements for the facility and any deficiencies noted during the evaluation.

Table 6 - Reporting Requirements					
Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis	Compliant
1	<u>Annual Emissions Report</u> Submit an annual emissions report which shall include the following information: a. Actual calendar year emissions from each emission unit of NO <sub>x</sub> , CO, SO <sub>2</sub> , and TSP, VOCs and HAPs; b. The methods used in calculating such emissions in accordance with Env-A 705.02, <i>Determination of Actual Emissions for Use in Calculating Emission-Based Fees</i> ; and c. All information recorded in accordance with Table 5, Items 2, 4, and 5.	Annually (Received by DES no later than April 15th of the following year)	EU01, EU04, & EU03	Env-A 907.01	Yes
2	<u>NO<sub>x</sub> Emission Statements Reporting Requirements</u> If the actual annual NO <sub>x</sub> emissions for the Facility are greater than or equal to 10 tpy, then include the following information with the annual emission report: a. A breakdown of NO <sub>x</sub> emissions reported pursuant to Table 6, Item 1 by month; and b. All data recorded in accordance with Table 5, Item 3.	Annually (Received by DES no later than April 15th of the following year)	EU01, EU04, & EU03	Env-A 909	Not Applicable
<b>Findings: The annual NO<sub>x</sub> emissions for the evaluation period were less than 10 tpy. Therefore, this condition does not apply.</b>					
3	<u>Permit Deviation Reporting Requirements</u> Report permit deviations that cause excess emissions in accordance with Condition VIII.B.	Within 24 hours of discovery of excess emission	EU01, EU04, & EU03	Env-A 911.04(b)(1)	Yes



Table 6 - Reporting Requirements					
Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis	Compliant
4	<u>Emission Based Fees</u> Pay emission-based fees in accordance with Condition XI.	Annually (Received by DES no later than April 15th of the following year)	EU01, EU04, & EU03	Env-A 700	Yes
5	<u>NSPS Fuel Reports for Small Steam Generating Units</u> Submit to the Division and EPA Region 1 a semi-annual fuel certification report for fuel oil consumed in Boiler No. 2 that includes the following information: a. The calendar dates covered in the reporting period; b. The types of fuels combusted during the reporting period; c. Copies of fuel supplier certificates maintained pursuant to Table 5, Item 5; and d. A certified statement signed by the Owner or Operator of the Facility that the data in the report represents all of the fuel combusted during the reporting period; and e. Excess emission reports for any excess emissions from the boilers which occur during the reporting period.  The address for USEPA Region 1 is: USEPA New England Attn: Air Compliance Clerk 5 Post Office Square Suite 100 (OES04-2) Boston, MA 02109-3912	Semiannually (Received by DES by July 31st and January 31st)	EU04	40 CFR 60.48c(e) (Subpart Dc)	No
<b>Findings:</b> Sprague submitted the required semi-annual reports for the evaluation period. However, the reports for the first half of 2012 were received September 20, 2012 and the report for the first half of 2015 was received August 13, 2015. Reports for the first half of each reporting year are due by July 31. Therefore, the two reports were not timely.					

#### VIII. Permit Deviations

Sprague is aware of the requirements to track and report deviations. No deviations were reported during the evaluation period.

## **IX. Other Findings**

***Boiler NESHAP for Area Sources of HAPs*** – The oil fired boilers (EU01 and EU04) are subject to 40 CFR 63, subpart JJJJJ – “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources” referred to as “6J.” EU01 was installed in 1973 and fits into the “existing source” category and EU04 was installed in 2011 and fits into the category of a “new source,” which means this subpart became applicable to EU04 May 20, 2011. Below are the requirements Sprague is subject to:

1. The Initial Notification of Applicability for EU01 was due to EPA by January 20, 2014 and was submitted timely. The Initial Notification of Applicability for EU04 was due within 120 days of May 20, 2011. Both notifications were submitted September 22, 2011.
2. Sprague is subject to biennial tune-ups and the first tune-up was due March 21, 2014 for EU01 and June 20, 2013 for EU04. The initial tune-ups for EU01 and EU04 were both conducted on March 19, 2012 which was before the deadlines for each boiler. The second biennial test for both boilers was recently completed on March 1, 2016.
3. The first Notification of Compliance Status was due March 14, 2014 and was signed by the responsible official on July 19, 2012 for both boilers.
4. Sprague conducted a particulate test for EU04 at the direction of EPA. The test was conducted May 8, 2012 and demonstrated compliance with 6J particulate requirements.
5. The boilers meet the applicability threshold for conducting a one-time Energy Assessment by March 21, 2014. Sprague completed the required Energy Assessment for EU01 and EU04 on March 14, 2014 and had on file the report dated June 26, 2014.

***Facility Wide RTAP Evaluation*** – Sprague conducted periodic reviews of Env-A 1400 and incorporated changes occurring during the evaluation period to the facility review. The last review was conducted July 2, 2014 and addressed any changes resulting from the April 4, 2014 revision of Env-A 1400. Sprague concluded that the facility complied with Env-a 1400 for the evaluation period.

***Facility Wide VOC Emissions*** – Sprague maintains a facility wide VOC emissions inventory for all activities conducted at the River Road facility. The calculations provided indicate that the River Road facility on a “Potential to Emit” basis continues to be below the major source threshold of 50 tpy.

***Tank Inventory*** – Sprague has a total of twenty seven above ground tanks that are used for the bulk storage of distillate fuels such as ULSD, ULSK, #2 fuel oil, biodiesel, #6 residual fuel oil and tallow which is used cooking oil (UCO). Each of the #6 residual oil and UCO storage tanks are heated to below the respective flash points using steam produced by boilers EU01 and / or EU04. There are fifteen additional tanks that range in size from 273 to 9,996 gallons that are used to store additives, dyes, recyclable oil and kerosene and fuel for the permitted devices and unpermitted facility heating units. Attachment 1 provides a full listing of all tanks currently on site and the use of each.

***Infrared Video*** – NHDES conducted video recordings of the residual oil above ground storage tank vents using an infrared imaging camera. The purpose was to detect gas emissions from the tank vents. No vent emissions were detected from the video recordings.

**X. Enforcement History and Status**


EPA issued a Notice of Violation (NOV) on March 3, 2015 for Violations of the Clean Air Act. The NOV addresses EPA's findings that Sprague violated and is still in violation of requirements in the New Hampshire state implementation plan regarding stationary source construction and operation, including certain new source review provisions. This enforcement action is pending and has not been resolved as of the date of this report.

**XI. Compliance Assistance, Recommendations and Corrective Actions**

No compliance assistance was required or provided as there were no deficiencies to correct.

Report Prepared By: Edward F. Peduto, Jr.  
Title: Senior Compliance Assessment Engineer

Signed:



## **ATTACHMENT 1**

### **LISTING OF ABOVE GROUND TANKS**

## 1.6 Facility Information

Tank Number	Substance Stored (Oil & Hazardous Substance)	Max Safe Fill Capacity (gallons)	Typical Quantity Stored (gallons)	Tank Type/Year Installed (Prefabricated)	Maximum Capacity (gallons)	Failure/ Cause and Date
<b>Product Storage Tanks</b>						
7004	ULSD/ULSK	281,820	176,400	Welded Steel 1932	271,194	None
5001	OOS	206,094	126,000	Welded Steel 1973	218,510	None
2501	No. 2 Fuel Oil	94,206	63,000	Welded Steel 1973	102,186	None
T501	ULSD (Retail)	18,396	16,800	Welded Steel mid-80's	21,000	None
<b>Subtotals</b>		<b>46,626,300</b>	<b>28,791,000</b>		<b>48,472,242</b>	
<b>Other Tank Storage</b>						
D1	Heatforce Additive	9,996	8,400	Welded Steel mid-80's	9,996	None
C1	Heatforce Additive	2,016	1,680	Welded Steel mid-80's	2,016	None
A1	Additive (Heat Force)	2,016	1,680	Welded Steel mid-80's	2,016	None
T19	Additive	714	630	Welded Steel 1994	798	None
T10	Additive	294	294	Welded Steel 1994	420	None
48	Out of Service	2,016	420	Welded Steel 1975	2,016	None
RD1	Red Dye	294	126	2005, Welded Steel	294	None

## 1.6 Facility Information

Other Tank Storage						
LA1	Lubricity Additive	294	84	2005, Welded Steel	294	None
RD2	NEL Red Dye for Pipeline	294	126	2002, Welded Steel	294	None
LA2	NEL Lubricity Additive	294	126	2004, Welded Steel,	294	None
RO1	Recyclable Oil	504	252	Welded Steel	504	None
KRO2	Kerosene Recyclable Oil	273	126	Welded Steel	273	None
DS1	Diesel	273	126	Welded Steel	273	None
HO1	Heating Oil	294	126	Welded Steel	294	None
HO3	Heating Oil	504	252	Welded Steel	504	None
Subtotals		20,076	14,448		20,076	



## 1.6 Facility Information

Tank Number	Substance Stored (Oil & Hazardous Substance)	Max Safe Fill Capacity (gallons)	Typical Quantity Stored (gallons)	Tank Type/Year Installed (Prefabricated)	Maximum Capacity (gallons)	Failure/ Cause and Date
Product Storage Tanks						
250001	Distillate/#2 fuel oil	10,233,804	6,300,000	Welded Steel 1972	10,567,536	None
217001	OOS	8,688,918	5,468,400	Welded Steel 1959	9,117,822	None
200001	Distillate/ULSD	8,114,820	5,040,000	Welded Steel 1973	8,345,736	None
55001	Distillate/ULSK	2,370,438	1,386,000	Welded Steel 1974	2,483,334	None
55002	Distillate/ULSD	2,449,146	1,386,000	Welded Steel 1974	2,517,774	None
55003	ULSD/ULSK	2,335,536	1,386,000	Welded Steel 1974	2,469,768	None
30001	#6 Residual Oil	1,210,860	756,000	Welded Steel 1973	1,261,680	None
30002	#6 Residual Oil	1,211,196	756,000	Welded Steel 1973	1,259,790	None
30003	#6 Residual Oil	1,207,710	756,000	Welded Steel 1973	1,258,448	None
30004	#6 Residual Oil	1,205,526	756,000	Welded Steel 1973	1,258,488	None
30005	Distillate/ULSK	1,213,128	756,000	Welded Steel 1954	1,262,940	None

## 1.6 Facility Information

Tank Number	Substance Stored (Oil & Hazardous Substance)	Max Safe Fill Capacity (gallons)	Typical Quantity Stored (gallons)	Tank Type/Year Installed (Prefabricated)	Maximum Capacity (gallons)	Failure/ Cause and Date
Product Storage Tanks						
30006	Distillate/ULSD	1,220,982	756,000	Welded Steel 1954	1,261,848	None
15001	<i>B100</i> Bio Fuel	603,624	420,000	Welded Steel 1941	634,284	None
15002	<i>B99</i> Bio Fuel	592,158	420,000	Welded Steel 1973	625,548	None
11001	ULSD/ULSK	480,900	252,000	Welded Steel 1933	495,264	None
11002	ULSD/ULSK	461,538	277,200	Welded Steel 1933	472,752	None
10001	<i>UCC</i> Tallow	397,824	252,000	Welded Steel 1989	424,368	None
10002	Tallow	397,446	252,000	Welded Steel 1973	423,990	None
10003	Tallow	397,866	252,000	Welded Steel 1973	424,326	None
10004	Tallow	398,664	252,000	Welded Steel 1973	424,872	None
7001	Tallow	274,470	176,400	Welded Steel 1932	300,174	None
7002	Tallow	275,184	176,400	Welded Steel 1932	300,972	None
7003	ULSD/ULSK	284,046	176,400	Welded Steel 1932	269,640	None